

AMENDMENTS TO THE DRAWINGS:

The attached sheet of drawings includes changes to Figure 1. This sheet, which includes Figure 1, replaces the original sheet including Figure 1. In Figure 1, the art is indicated to be "Prior Art." The Applicants submit that no new matter was added by the amendment of the figure.

Attachment: Replacement Sheet

REMARKS

In the Office Action mailed December 9, 2008 the Office noted that claims 1-19 were pending and rejected claims 1-10 and 18 and objected to claims 11-17 and 19. Claims 1-19 have been amended, no claims have been canceled, claim 20 is new, and, thus, in view of the foregoing claims 1-20 remain pending for reconsideration which is requested. No new matter has been added. The Office's rejections and objections are traversed below.

OBJECTION TO THE SPECIFICATION

The disclosure stands objected to for informalities. In particular, the Office states that the Specification lacks section headings. The Applicants have amended the Specification to include section heading in conformity with the requirements of MPEP § 608.01(a).

Withdrawal of the objection is respectfully requested.

OBJECTION TO THE DRAWINGS

The drawings stand objected to. In particular the Office asserts that Fig. 1 should be labeled as "Prior Art" as all that is illustrated is old. The Applicants have amended the figures consistent with the comments of the Office.

Withdrawal of the objection is respectfully requested.

ALLOWABLE SUBJECT MATTER

The Office has indicated that claims 11-17 and 19 would be in a condition for allowance if re-written in independent form. The Applicants thank the Office for the consideration given the claims and submit that the claims are allowable for the reasons discussed below.

REJECTIONS under 35 U.S.C. § 112

Claims 1, 9, 15 and 16 stand rejected under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. In particular the Office asserts that the claims use language which is vague.

The Applicants have amended the claims to overcome the rejection.

Withdrawal of the rejections is respectfully requested.

REJECTIONS under 35 U.S.C. § 103

Claims 1-10 and 18 stand rejected under 35 U.S.C. § 103(a) as being obvious over Himmel, U.S. Patent No. 3,560,978 in view of Mattia, U.S. Patent No. 6,278,105. The Applicants respectfully disagree and traverse the rejection with an argument.

Himmel discusses the structure and operation of an electronically controlled antenna system. In the antenna of

Himmel, a central radiator is surrounded by two (or four) concentric rings of parasitic elements. Those parasitic elements are either monopole (see Fig. 2) or dipoles (see Fig. 4 which is not the central radiator contrarily to examiner's opinion). In this Himmel, there is no indication of the precise arrangement of those elements according to the frequency of transmissions. Himmel only describes, in relation to Fig. 3, that two different diameters of parasitic elements are used for two frequencies.

In fact, in Himmel, Fig. 1 is giving information about the relative distance and height of rings and elements. From Fig. 1, it appears that the distance between the two rings are much greater than the height of the element and that is all that can be directly deduced. Now, with a *posteriori* reasoning, if we consider that the height of the elements are half the wavelength then the distance between the two rings is much greater than half the wavelength (and cannot be smaller than a quarter of the wavelength as claimed).

As a consequence, even if by chance one uses an element with a height of an half (at least) of wavelength, he will not end with a distance smaller than a quarter of the wavelength.

Thus, for at least the reason discussed above, the combination of references fails to disclose "the radiating element being arranged inside the innermost curve and the distance between the curves is smaller than a quarter of the wavelength, the length of a wire/bar being greater than or equal

to half the wavelength," as in claim 1.

For at least the reasons discussed above, Himmel and Mattia, taken separately or in combination, fail to render obvious the features of claim 1 or the claims dependent therefrom.

Claims 1-10 and 18 stand rejected under 35 U.S.C. § 103(a) as being obvious over Pritchett, U.S. Patent No. 5,767,807 in view of Mattia. The Applicants respectfully disagree and traverse the rejection with an argument.

Pritchett discusses an antenna in which the height of the elements equals the distance between them radially (0.2662 in Fig. 1). In Pritchett, col. 4, lines 49-53, it is said that those dimensions are critical. It means that height=distance.

The Applicant acknowledges that Pritchett discloses dimensions. However, opposite of the claims Pritchett discusses distance=height. The secondary reference gives less precise information on dimensions gives the height much lower than the distance. In any case this could not give incentive to the claimed dimensions with height ($\geq \frac{1}{2} \lambda$) greater than distance ($< \frac{1}{4} \lambda$).

For at least the reasons discussed above, Pritchett and Mattia, taken separately or in combination, fail to render obvious the features of claim 1 or the claims dependent therefrom.

Withdrawal of the rejections is respectfully requested.

NEW CLAIM

Claim 20 is new. Support for claim 1 may be found, for example, in claim 1 as originally filed. The Applicants submit that no new matter is believed to have been added. The prior art of record fails to disclose the radiating element is passive

SUMMARY

It is submitted that the claims satisfy the requirements of 35 U.S.C. §§ 112 and 103. It is also submitted that claims 1-20 continue to be allowable. It is further submitted that the claims are not taught, disclosed or suggested by the prior art. The claims are therefore in a condition suitable for allowance. An early Notice of Allowance is requested.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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APPENDIX:

The Appendix includes the following item(s):

- ☒ - a Substitute Specification and a marked-up copy of the originally-filed specification
- ☒ - a Replacement Sheet for Figure 1 of the drawings